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Reference P144557 PI/DV/S	Application No./Patent No. 03738960.8 - 2310 PCT/US0316394
Applicant/Proprietor Pioneer Laboratories Inc.	

#### Communication

The European Patent Office herewith transmits as an enclosure the supplementary European search report under Article 153(7) EPC for the above-mentioned European patent application.

If applicable, copies of the documents cited in the European search report are attached.

- ☐ Additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well.

#### Refund of the search fee

If applicable under Article 9 Rules relating to fees, a separate communication from the Receiving Section on the refund of the search fee will be sent later.





DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	FR 2 797 179 A (GAU MICHEL [FR]) 9 February 2001 (2001-02-09)	1-4, 8-12, 17, 25, 26, 28-35, 40	INV. A61F2/44
Y	* pages 6-8 *	5-7, 18-21, 23, 24, 35, 36, 41, 42	
X	FR 2 372 622 A (FASSIO BERNARD [FR]) 30 June 1978 (1978-06-30)  * pages 1-3 *	1, 8, 9, 17, 25-28, 32	
X	DE 101 30 825 A1 (STEFFEN HELGE [DE]) 7 March 2002 (2002-03-07) * paragraphs [0001] - [0004] *	1	
X	WO 91/05521 A (GROSS ULRICH [DE]; SCHMITZ HERMAN JOSEF [DE]; KADEN BERTRAM [DE]; FUHR) 2 May 1991 (1991-05-02) * pages 3-10 *	28, 32, 34	TECHNICAL FIELDS SEARCHED (IPC)
Y	US 5 893 889 A (HARRINGTON MICHAEL [US]) 13 April 1999 (1999-04-13) * column 2, line 55 - column 4, line 44 *	5, 18, 19, 35, 36, 42	A61F
Y	FR 2 805 985 A (EUROSURGICAL [FR]) 14 September 2001 (2001-09-14) * pages 4-5 *	6, 7, 41	
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-/--			
The supplementary search report has been based on the last set of claims valid and available at the start of the search.			
Place of search Munich		Date of completion of the search 8 February 2008	Examiner Buchmann, Gerhard
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y	FR 2 787 014 A (DIMSO SA [FR]) 16 June 2000 (2000-06-16) * page 8, lines 5-13 *	23,24	
X,P	WO 02/087480 A (SPINECO INC [US]) 7 November 2002 (2002-11-07) * pages 18-22 *	1,8,9, 25,26, 28,31-33	
			TECHNICAL FIELDS SEARCHED (IPC)
The supplementary search report has been based on the last set of claims valid and available at the start of the search.			
Place of search Munich		Date of completion of the search 8 February 2008	Examiner Buchmann, Gerhard
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons &amp; : member of the same patent family, corresponding document</p>			



### CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

### LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- ☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- ☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:
- ☒ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-42

A spinal artificial disc comprising upper and lower central bearing surfaces and upper and lower outer bearing surfaces extending radially outward from the central bearing surfaces, the central bearing surfaces being spaced by a greater distance than the outer bearing surfaces.

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2. claims: 43-53

A spinal artificial disc comprising upper and lower plates having a central projection, and a resilient annular load bearing member between the plates, and a bumper member to limit the deformation of the annular member.

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3. claims: 54-63

A spinal artificial disc comprising upper and lower bearing shells, a central bearing portion slidably supporting the shells, and an annular outer bearing portion extending around the central bearing portion.

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The features which are common to the inventions 1, 2 and 3 are:  
A spinal artificial disc comprising a central and an outer bearing portion.

These common features, however, are already known from FR-A-2797179. This document discloses a spinal prosthesis comprising a central bearing portion (8) and an outer bearing portion (14).

Apart from these features, the present 3 inventions, are completely different in their functions and technical features:

Invention 1 is a more or less rigid implant for sliding against the vertebral endplates.

Invention 2 is an artificial disc fixed to the vertebral endplates and allowing elastic motion between the disc endplates.

Invention 3 is an artificial disc fixed to the vertebral endplates and allowing articulating motion between the disc endplates.

Hence, the above 3 inventions have neither common features making a contribution over the prior art, nor corresponding features which would solve the same problem.

Therefore the above 3 inventions are not linked by a single inventive concept in the sense of Rule 44 EPC.

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 03 73 8960

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

08-02-2008

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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